

REMARKS

The Office Action of December 29, 2006 has been reviewed, and the Examiner's comments have been carefully considered. Claims 12-23 were pending in this application, with claims 12, 22 and 23 written in independent form. The present Amendment amends claims 12, 14, 17 and 22-23 all in accordance with the originally-filed specification, and cancels claim 16. Accordingly, claims 12-15 and 17-23 are pending in this application.

Applicants' undersigned representative thanks the Examiner for the courtesies extended during the telephone interview conducted on April 3, 2007. Applicants have amended the pending claims substantially in accordance with the proposed claim amendments discussed during the interview.

Objections to the Specification and Drawings

The specification was objected to as failing to provide clear support for certain claim terminology. Specifically, the specification was objected to for not reciting the term "fastening means." Independent claim 12 has been amended to delete the wording "fastening means."

The objections to the drawings are deemed moot in view of the present amendments to the claims. Specifically, the Examiner objected to the drawings as failing to disclose the ligature passing through the adjustable locking means. In the presently amended claims, the Applicants have clarified that the ligature passes between the first and second longitudinal members. Accordingly, none of the pending claims recite that the ligature passes through the adjustable locking means. In view of the present claim amendments, Applicants submit that corrected drawing sheets are not necessary.

Applicants respectfully request reconsideration and withdrawal of the objections to the specification and drawings.

Objections to the Claims

Claims 12-22 were objected to due to an inconsistency between the language of independent claim 12 and that of dependent claim 13. Claim 22 was also objected to due to an inconsistency between the preamble and the body of the claim. Specifically, the claims were objected to for not clearly indicating whether the rod was claimed, hence, whether the combination or the sub-combination of elements was claimed. Independent claims 12 and 22

have been amended to clearly recite “a rod capable of being connected to the vertebra of the spine.” Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection to claims 12-22.

Rejections Under 35 U.S.C. §112

Claims 12-23 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, claim 12 was rejected as providing insufficient antecedent basis for the phrase “said ends” in line 17. Claim 12 has been amended to delete the wording “said ends.” Claim 14 was rejected as providing insufficient antecedent basis for the phrase “first ends” in line 2. Claim 14 has been amended to properly provide sufficient basis for the phrase “first ends.” Claim 22 was rejected as providing insufficient antecedent basis for the phrase “the loop” in lines 12-13. Claim 22 has been amended to recite “a loop.” Claim 23 was rejected as providing insufficient basis for the terms “the loop” in lines 12-13 and “first ends” in line 15. Claim 23 has been amended to recite “a loop” and to properly provide sufficient basis for the phrase “first ends.”

In view of the above amendments to the claims, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 12-23 under 35 U.S.C. §112, second paragraph.

Rejections Under 35 U.S.C. §102

Claims 12-22 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,356,412 to Golds et al. (hereinafter “Golds”). As presently amended, independent claims 12 and 22 each recite, in relevant part, “a connecting part ... comprising first and second longitudinal members pivotally connected at a pivot ... said flexible ligature having an end fastened to the pivot.” As discussed with the Examiner on April 3, 2007, Golds discloses a vertebral fixing system including a buckle portion 14 and a flexible strap 12 passing through upper and lower openings 24, 26. In use, wedging surfaces 32, 34 having teeth 40 frictionally secure the strap against the buckle of Golds. Golds does not disclose a vertebral fixing system comprising a connecting part comprising first and second longitudinal members pivotally connected at a pivot, or a flexible ligature having an end fastened to the pivot.

Furthermore, claims 12 and 22 have been amended to affirmatively recite “a rod capable of being connected to the vertebra of the spine.” As discussed with the Examiner, Applicants’ claims 12 and 22 each recite both a rod and adjustable locking means. Although Golds discloses a buckle portion having an axial pin 20 mounted within the buckle portion 14 to allow the clamp 18 to rotate thereabout, the axial pin 20 of Golds is not a separate rod. The axial pin 20 of Golds is part of the clamping mechanism for restraining the flexible strap. Independent claims 12 and 22, and dependent claims 13-21, depending directly or indirectly from claim 12, are therefore patentable over the cited art of record. Reconsideration and withdrawal of the rejection of claims 12-22 are respectfully requested.

Claim 23 stands rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 902,040 to Wyckoff (hereinafter “Wyckoff”). As presently amended, independent claim 23 recites, in relevant part, “a vertebral fixing system adapted to be mounted on a vertebra of the spine comprising ... a rod capable of being connected to the vertebra of the spine; ... an elongate flexible ligature adapted to connect together said connecting part and at least one rib and/or one transverse process.” Wyckoff discloses a wire connector to clamp electrical wires in place including a plate *a* having a hole *j* slightly larger than the shank of bolt *d*, and a second plate *b* having a corresponding hole through its center for screw-thread *k* of the bolt. As discussed with the Examiner on April 3, 2007, Wyckoff is directed to a wire connector for electrical wires and is not intended to be, nor physically capable of being, used as a vertebral fixing system. In addition, Wyckoff fails to disclose a rod capable of being connected to the vertebra of the spine, nor does Wyckoff disclose an elongate flexible ligature adapted to connect a connecting part and at least one rib and/or transverse process. Independent claim 23 is therefore patentable over the cited art of record. Reconsideration and withdrawal of the rejection of claim 23 are respectfully requested.

Rejections Under 35 U.S.C. §103(a)

Claims 12, 14, 15 and 17-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,179,838 to Fiz (hereinafter “Fiz”) in view of PCT Publication No. WO/0209604 A1 to Burgess et al. (hereinafter “Burgess”). Claims 14, 15 and 17-21 depend directly or indirectly from independent claim 12. According to the Office Action, Fiz discloses a bone fixation device comprising a connecting part capable of facing a rib and/or transverse process and capable of being connected to a rod. Also, according to the

Office Action, Fiz discloses adjustable locking means fastened to the connecting part. As acknowledged by the Examiner, Fiz does not disclose a flexible ligature having a first end secured to the fastening means. Burgess is relied upon as disclosing a ligature with a first end secured to the fastening means and a second free end. According to the Office Action, it would have been obvious to one of ordinary skill in the art to have constructed the vertebral fixing system of Fiz with the ligature attached to the connecting device of Burgess, in order to use the ligament to attach the vertebral fixing device to the spine.

Independent claim 12 has been amended to recite, in relevant part, "a connecting part ... comprising first and second longitudinal members pivotally connected at a pivot ... said flexible ligature having an end fastened to the pivot." As discussed with the Examiner on April 3, 2007, neither Fiz, nor Burgess, alone or in combination, discloses or suggests a flexible ligature having an end fastened to the pivot of the connecting part as recited in Applicants' amended claim 12. As shown in Fig. 6 of Burgess, the flexible ligature is secured within the solid non-pivoting housing. Even the combination of Fiz and Burgess does not disclose the presently claimed invention as recited in Applicants' claim 12. Accordingly, independent claim 22, and dependent claims 14, 15 and 17-21 are patentable over the cited art of record. Reconsideration and withdrawal of the rejection of claims 12, 14, 15 and 17-21 are respectfully requested.

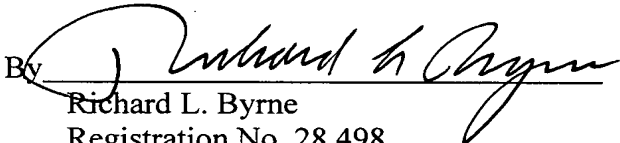
Application No. 10/521,914
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Summary

Applicants respectfully submit that the presently claimed invention is patentably distinct over the above-identified prior art of record and that claims 12-15 and 17-23, as amended, are in condition for allowance. The Examiner's reconsideration and favorable action with respect to claims 12-15 and 17-23 are respectfully requested.

Respectfully submitted,

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